NATURAL RESOURCE TECHNOLOGY
ENVIRONMENTAL CONSULTANTS

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Report:	**Weekly Progress Report**
Project:	**Former North Plant MGP Site Removal Action Construction Waukegan, Illinois**
Date:	July 9, 2014
Prepared By:	Natural Resource Technology, Inc. Andrew Millspaugh, PE Mark Walter, PE Glenn Luke, PE
Submitted To:	Integrys Business Support, LLC Naren M. Prasad, PE
Activity Period:	June 30, 2014 through July 5, 2014

Natural Resource Technology, Inc. Personnel on Site

- Dan Vachon, **Field Technician**
- Mark Walter, **Field Engineer**
- Todd Lewis, **Construction Manager**

USEPA Personnel on Site

- Andy Plier, **OTIE**

Integrys/North Shore Gas Personnel on Site

- None

Subcontractors on Site

- Geo-Solutions, Inc. (GSI), **Earthwork, In Situ Solidification/Stabilization**
- James Anderson Co., **Designated Erosion Control Inspector**
- McClure Engineering Associates, **Registered Land Surveyor**
- Krause Electric, **Electrical Subcontractor**

Others

- Burns & McDonnell, **Perimeter Air Monitoring**

Visitors

- None

This report summarizes field activities performed by NRT, in addition to NRT's subcontractors, on behalf of IBS at the former North Plant MGP Site Time Critical Removal Action:

Site Activities

Removal Action Totals:

- Direct Disposal (Soil and Debris) through 7/5/14: 63,307.92 Tons
- In Situ Solidification/Stabilization (ISS) through 7/5/14: 275,729.18 Cubic Yards

NRT

- Managed site security and construction activities with IBS, GSI, WMI, and Burns & McDonnell.
- Facilitated and participated in daily safety meetings to evaluate potential safety concerns for the day's planned construction activities.
- Management and oversight of GSI's construction efforts throughout the week.
- Management and oversight of GSI during full-scale ISS construction in Removal Action Area B with 12% reagent addition.
- Management and oversight of GSI during placement of general fill in Removal Action Area A.
- Coordination and scheduling of disposal trucks with WMI and GSI.
- Prepared Construction Quality Assurance (CQA) samples from full-scale ISS (6 samples) for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084) laboratory testing by Timely Engineering Soil Tests (T.E.S.T.). Test results to be compared to ISS performance goals established in the Removal Action Work Plant (RAWP).
- Received and reviewed ISS CQA sample test results for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084). Laboratory testing is completed by Timely Engineering Soil Tests (T.E.S.T.). Test results are compiled and compared to the ISS performance goals established in the Removal Action Work Plan (RAWP).
- Construction survey verification of ISS column locations and elevations, pertinent site features, Removal Action Areas, historical foundations, etc.
- Accompanied James Anderson Co. during a weekly erosion control inspection on Tuesday (7/01).
- Monitored site conditions for traffic flow, fugitive dust, odors, and general overall safety.
- Conducted periodic worker health and safety air monitoring in the work zone.
- Implemented fugitive emission controls including Rusmar odor control foam, covering of inactive stockpiles, operation of an odor control perimeter misting system, and sequencing of work to minimize material handling.

Geo-Solutions Inc.

- Continued full-scale ISS construction in Removal Action Area B with 12% reagent addition. 4,943.35 cubic yards of ISS was completed.
- Received 21 loads of ground granulated blast furnace slag (GGBFS) and 7 loads of Portland cement for full-scale ISS construction.
- Imported and placed 4,224.85 tons (171 loads) of general fill in Removal Action Area A.
- Implemented fugitive emission controls including water for dust suppression, Rusmar foam for odor and VOC emissions, and stockpile covering with scrim reinforced plastic.
- Implemented additional fugitive emission controls including additional Rusmar odor control foam, additional covering of inactive stockpiles, and sequencing of work to minimize material handling in preparation of the extended site shut down over the holiday weekend.
- Maintained and administered site exclusion zones, decontamination areas, and site health and safety procedures.
- Conducted worker health and safety air monitoring in the work (exclusion) zone.

James Anderson Company

- Completed a weekly erosion control inspection on Thursday (6/26). The inspections were performed in accordance with the Watershed Development Permit and the general National Pollutant Discharge Elimination System (NPDES) permit.

McClure Engineering Associates

- Completed a documentation survey of the graded ISS swell surface in a completed portion of Removal Action Area A.
- Completed a topographic survey of the expanded Removal Action Area on Parcel 4 to document pre-construction conditions.

Changes to Scope of Work

- None.

Open/Outstanding Items

- None.

Work planned for the week of July 7, 2014 through July 12, 2014

- Perform perimeter Air Monitoring.
- Complete full-scale ISS construction in Removal Action Area B with the Manitowoc 4000w.
- Site preparation of Parcel 4 for ISS construction.
- Full-scale ISS construction on Parcel 4 with the Delmag RH-28 and the Manitowoc 4000w.
- Receive and evaluate ISS CQA data.
- Grade ISS swell material to final design elevations in Removal Action Area A.
- Place and grade general fill in Removal Action Area A.

A Weekly Progress Report will be issued throughout the duration of field activities for this Time Critical Removal Action. A written report summarizing the results of the Removal Action will be provided following completion of all field activities. A summary of the perimeter air monitoring activities, as detailed by the Air Monitoring Contractor, is included with this report as Attachment 1.

Please contact us if you have any questions.

Sincerely,
NATURAL RESOURCE TECHNOLOGY, INC.

Glenn Luke, PE
Environmental Engineer

Attachment 1: Burns and McDonnell Weekly Air Monitoring Report

Field Photos:

Photo 1: ISS construction in Removal Action Area B with the Manitowoc 4000w and Delmag RH-28.

Direction: Southeast

Photo Date: 7/2/14

Photo Taken By: DJV

Photo 2: Placement of general fill in Removal Action Area A.

Direction: Northeast

Photo Date: 7/3/14

Photo Taken By: DJV

Photo 3: Tarping and foaming of ISS swell stockpiles and graded ISS swell material.

Direction: South

Photo Date: 7/3/14

Photo Taken By: DJV

ATTACHMENT 1

1431 Opus Place, Suite 400
Downers Grove, Illinois 60515

Record of Weekly Ambient Air Monitoring Activities
Former North Plant MGP Site

Date Period: June 30 – July 6, 2014

Burns & McDonnell is performing ambient air monitoring and sampling along the site perimeter at the Former North Plant MGP Site in accordance with the *North Plant MGP Site – Removal Action Work Plan (RAWP)*. We are completing real time ambient air monitoring 24-hours a day, seven days a week at seven locations (AMS-1 through AMS-7) along the Site perimeter. We are collecting 24-hour perimeter air samples at upwind and downwind locations at the Air Monitoring Stations on a routine basis at frequencies and quantities outlined in the RAWP. Burns & McDonnell is also performing real-time handheld and observation monitoring as described in the RAWP. This weekly report describes air monitoring activities for the week of June 30 – July 6, 2014 and includes:

Tasks	Ambient Air Monitoring Activities
Sampling Activities Performed	A total of 8 SUMMA canister air samples and 4 PUF air samples were collected and submitted to STAT Analysis for BTEX/Naphthalene and select PAH analyses, respectively.
BMcD Field Personnel	Ross Hartwick Jason Wuerch Erik Ehrengren
Equipment Deployed	AirLogics Air Monitoring Stations SUMMA canisters with 24-hour flow regulators PUF sampling systems Photo ionization detector (PID) TSI Dusttrak monitoring device

Perimeter Ambient Air Monitoring Results:

Real-time Perimeter Ambient Air Monitoring data for the week June 30 – July 6, 2014 will be uploaded to the Burns & McDonnell MFT site and emailed to Brad Benning and Ross del Rosario of the US Environmental Protection Agency (EPA). Real-time Perimeter Ambient Air Analytical Results are attached to this Weekly Report updated through June 26, 2014. The laboratory analytical reports will also be uploaded to the MFT site for the samples collected on June 24 and June 26, 2014. We did not analyze the summa sample collected at AMS-6 on June 24, 2014 because the summa did not collect a representative sample and the final summa pressure was zero upon sample collection.

All Real-time Perimeter Ambient Air Monitoring data for the prior week June 23-29, 2014 was uploaded to the Burns & McDonnell MFT site and emailed to Brad Benning and Ross del Rosario on July 2, 2014.

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Figure 1: Site Map

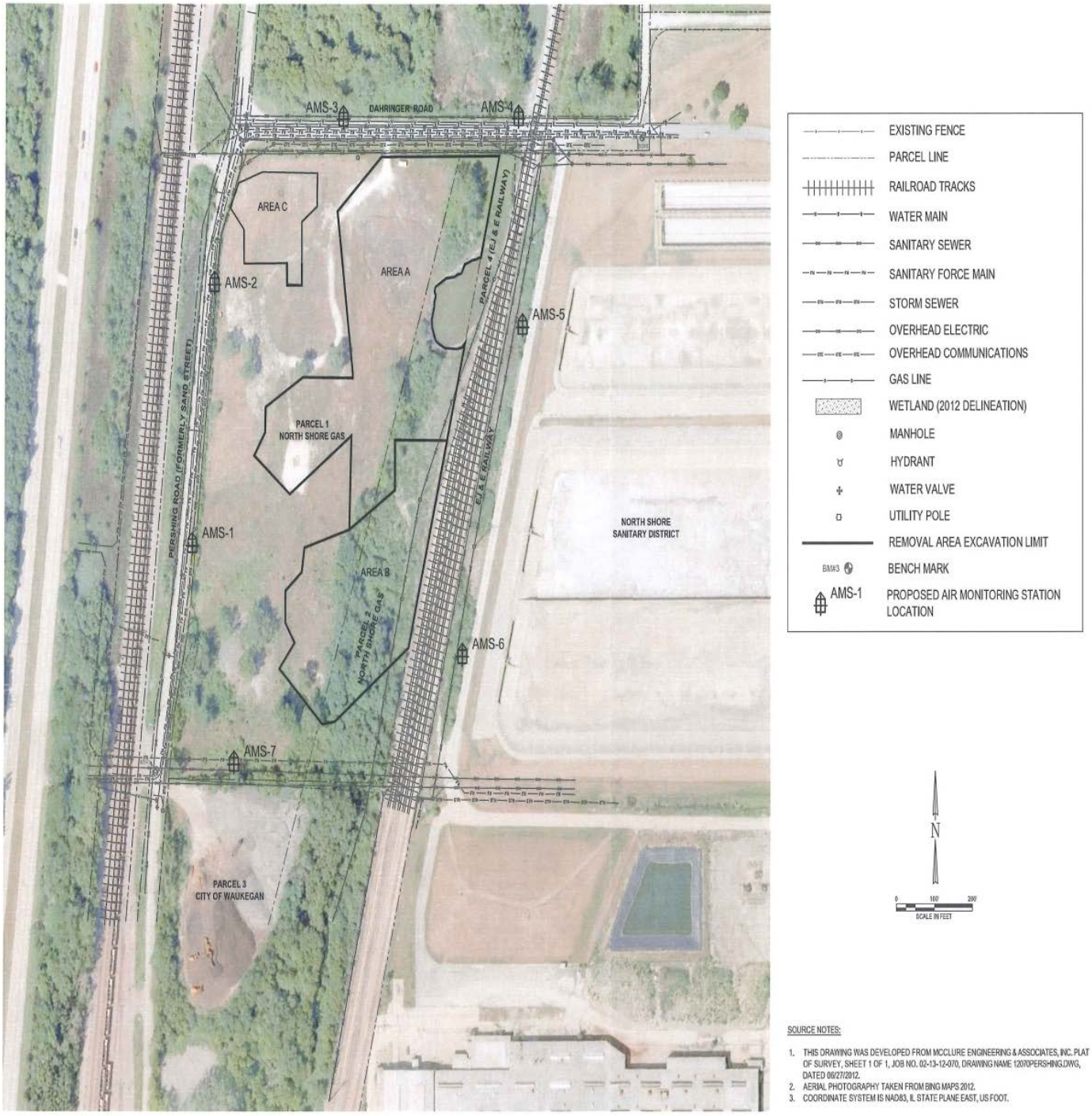

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Table 3
Sampling Average Concentrations through June 26, 2014
Acceptable Air Concentration Screening
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	**Acceptable Air Concentrations at TCR* 1E-4**	**Acceptable Air Concentrations at TCR* 1E-5**	Acceptable Air Concentrations at TCR* 1E-6	Sample Location/Concentration						
				Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7
Benzene, Ethylbenzene, Toluene and Total Xylenes (BTEX) and Naphthalene (ug/m3)										
Benzene	80	80	9.0	0.887	1.316	1.556	1.378	1.302	1.164	0.927
Ethylbenzene	2,800	280	28	1.102	1.348	2.086	2.125	1.967	1.401	1.160
Naphthalene	30	21	2.1	5.853	7.541	11.474	9.647	8.684	5.913	7.065
Toluene	5,000	5,000	5,000	1.831	2.224	2.182	1.671	1.690	1.906	1.889
Xylenes, Total	400	400	400	2.768	3.042	3.329	2.895	2.937	2.929	3.108
Polynuclear Aromatic Hydrocarbons (PAHs) (ug/m3)										
Benzo(a)anthracene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(b)fluoranthene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(k)fluoranthene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(a)pyrene	6.4	0.64	0.064	NC	NC	NC	NC	NC	NC	NC
Chrysene	640	64	6.4	NC	NC	NC	NC	NC	NC	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	NC	NC	NC	NC	NC	NC	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC

Notes:

1) If all sample results are non-detect no average is calculated.
2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
3) * TCR - Target Cancer Risk
4) AAC - Acceptable air concentrations.
5) Result shaded gray - value exceeds AAC for TCR 1E-4.
6) Result bold - value exceeds AAC for TCR 1E-5.
7) Result underlined - value exceeds AAC for TCR 1E-6.
8) NC - All sample results are non-detect; no average is calculated.

Table 4 (Continued)
24-Hour Ambient Air Data Results - Acceptable Air Concentration Screening and Cumulative Average
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	**Acceptable Air Concentrations at TCR* 1E-4**	**Acceptable Air Concentrations at TCR* 1E-5**	Acceptable Air Concentrations at TCR* 1E-6	Sample Location and Sample Start Date/Concentration							
				Station 2 6/24/2014		Station 3 6/24/2014		Station 6 6/24/2014		Station 7 6/24/2014	
				Result	Avg	Result	Avg	Result	Avg	Result	Avg
BTEX and Naphthalene (ug/m3)											
Benzene	80	80	9.0	4.1	1.316	1.8	1.570	NA	1.164	1.9	0.880
Ethylbenzene	2,800	280	28	2.5	1.348	3.1	2.105	NA	1.401	2.8	1.084
Naphthalene	30	21	2.1	**49**	7.541	**34**	11.616	NA	5.913	**37**	5.451
Toluene	5,000	5,000	5,000	6.7	2.224	2.7	2.203	NA	1.906	3.2	1.759
Xylenes, Total	400	400	400	8.9	3.042	4.3 U	3.346	NA	2.929	5.3	2.852
PAHs (ug/m3)											
Benzo(a)anthracene	64	6.4	0.64	0.016 U	NC	0.016 U	NC	0.015 U	NC	0.015 U	NC
Benzo(b)fluoranthene	64	6.4	0.64	0.016 U	NC	0.016 U	NC	0.015 U	NC	0.015 U	NC
Benzo(k)fluoranthene	64	6.4	0.64	0.016 U	NC	0.016 U	NC	0.015 U	NC	0.015 U	NC
Benzo(a)pyrene	6.4	0.64	0.064	0.016 U	NC	0.016 U	NC	0.015 U	NC	0.015 U	NC
Chrysene	640	64	6.4	0.016 U	NC	0.016 U	NC	0.015 U	NC	0.015 U	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	0.016 U	NC	0.016 U	NC	0.015 U	NC	0.015 U	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	0.016 U	NC	0.016 U	NC	0.015 U	NC	0.015 U	NC

Notes:

1) Avg - Cumulative average concentration.
2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
3) * TCR - Target Cancer Risk
4) AAC - Acceptable air concentrations.
5) Result underlined - value exceeds AAC for TCR 1E-6.
6) Result bold - value exceeds AAC for TCR 1E-5.
7) Result shaded gray - value exceeds AAC for TCR 1E-4.
8) NA - Not analyzed.
9) U - Compound/analyte not detected. The associated numerical value is the reporting limit.
10) NC - All sample results are non-detect; no average is calculated.

Table 4 (Continued)
24-Hour Ambient Air Data Results - Acceptable Air Concentration Screening and Cumulative Average
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	**Acceptable Air Concentrations at TCR* 1E-4**	**Acceptable Air Concentrations at TCR* 1E-5**	Acceptable Air Concentrations at TCR* 1E-6	Sample Location and Sample Start Date/Concentration							
				Station 1 6/26/2014		Station 3 6/26/2014		Station 4 6/26/2014		Station 7 6/26/2014	
				Result	Avg	Result	Avg	Result	Avg	Result	Avg
BTEX and Naphthalene (ug/m3)											
Benzene	80	80	9.0	2.1	0.887	1.0 U	1.556	1.1 U	1.378	4.2	0.927
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Naphthalene	30	21	2.1	**70**	5.853	1.7 U	11.474	1.8 U	9.647	**120**	7.065
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Benzo(b)fluoranthene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(k)fluoranthene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(a)pyrene	6.4	0.64	0.064	NA	NC	NA	NC	NA	NC	NA	NC
Chrysene	640	64	6.4	NA	NC	NA	NC	NA	NC	NA	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	NA	NC	NA	NC	NA	NC	NA	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC

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